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(12) **EUROPEAN PATENT APPLICATION**

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(54) **Mop for cleaning utensils**

(57) Mop for cleaning utensils, constituted by a bundle or collection of cords constituted by one or more threads composed on a basis of microfibres of a synthetic nature. The cords can be secured by means of a headpiece or band.

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Description

[0001] The present invention is related with a mop for cleaning utensils, constituted on a basis of cords of an absorbent textile material.

[0002] The traditional mops comprise cords based on braided cotton fibres or threads, which can include fibres of a synthetic nature. These cords are joined by means of a head of plastic material, in the case of domestic cleaning utensils, or by means of an intermediate band, in the case of cleaning utensils for industrial use.

[0003] For the purpose of increasing the duration of the mops and their absorption capacity, the cords of which they are formed can be constituted differently.

[0004] Thus, from the Spanish Utility Model number 9701213, a mop is known of the type in which the absorbent textile material consists of a yarn, knitted or wadded, dressed with a carded veil in the form of banded structures, sack-shaped or tubular. The carded veil can consist of curled fibres formed totally or partially by microfibres. Although this constitution provides a longer duration, its manufacture proves costly, since it requires the formation of the yarn, knitted or wadded, and its dressing with a carded veil, which forms a protective jacket.

[0005] The object of the present invention is to provide a mop of long duration, having a great capacity of absorption and which is economical, in comparison with the mops composed on a basis of similar materials.

[0006] The mop of the invention is of the type constituted by a bunch or collection of cords which are supported by means of a headpiece or band and is characterised in that each one of the cords mentioned is constituted by one or more threads composed on a basis of microfibres of synthetic nature.

[0007] The microfibres of synthetic nature are of great length and form with one another threads, for which said microfibres are joined to each other by tangling or welded points.

[0008] In turn, the threads composed of microfibres are grouped together to form the cords. This grouping can comprise two or more threads that can be twisted, braided and even joined to each other by means of tangling or welded points.

[0009] Thus are successively obtained from the microfibres, threads which are grouped together in the manner explained in order to form the cords.

[0010] The cords with the constitution explained are arranged in the traditional manner in order to form the mop, that is forming a bunch or collection of cords that are secured by means of a headpiece or by means of a band, depending on the application of the mop.

[0011] The cords that form the mop may be further gathered together by means of a band parallel to and near the free edge of said cords.

[0012] In the formation of the mop the cords can be cut, having a length approximately equal to twice the length of the mop, being gathered at their central part

by the headpiece or assembly band. The cords may also be of a length much greater than that of the mop, being in a folded arrangement and it being these folds which define the extremities of the mop. In both the first and the second case, the cords can be gathered together consecutively by means of a strand that crosses transversally said cords close to the free extremity and is attached to said cords by stitching.

[0013] In all other respects, the mop of the invention can include and adopt the constitutions of the traditional mops, the cords, for example, being white or of whatever other colour.

Claims

1. Mop for cleaning utensils, constituted by a bunch or collection of cords which are secured by means of a headpiece or band, characterised in that each of the cords mentioned is constituted by one or more threads composed on a basis of microfibres of a synthetic nature.
2. Mop in accordance with the first claim characterised in that the microfibres that form each thread are joined together by means of tangling or welded points.
3. Mop in accordance with claim 1, characterised in that each cord is composed of two or more twisted threads.
4. Mop in accordance with claim 1, characterised in that each cord is composed of two or more braided threads.
5. Mop in accordance with claim 1, characterised in that each cord is composed of two or more threads that are joined to each other by means of tangling or welded points.



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EUROPEAN SEARCH REPORT

Application Number
EP 02 38 0010

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	WO 98 52458 A (PROCTER & GAMBLE) 26 November 1998 (1998-11-26) * page 5, line 30 - line 33 * * page 6, paragraph 3 - page 7, paragraph 1 * * page 10, line 12 - line 28 * * page 12, line 25 - line 29 * * page 14, paragraph 2 * * page 16, line 33 - page 17, line 18; figures 1,4 *	1,2,5	A47L13/16 A47L13/20
Y	-----	3,4	
Y	US 4 144 370 A (BOULTON ALAN H) 13 March 1979 (1979-03-13) * column 1, line 45 - line 56 * * column 3, line 3 - line 7; figure 2 *	3,4	
X	WO 99 62393 A (NORDIN RUDOLF ;ACT AB (SE)) 9 December 1999 (1999-12-09) * page 2, line 30 - page 3, line 5 * * page 3, line 12 - line 23 * * page 3, line 35 - page 4, line 9 *	1	
X	DE 200 12 226 U (GRABARITS DIETER) 14 December 2000 (2000-12-14) * page 1, paragraph 1 * * page 3, line 20 - line 28; figures 1,3 *	1	
A	EP 1 045 059 A (FREUDENBERG CARL FA) 18 October 2000 (2000-10-18) * column 2, line 14 - line 37 * * column 3, line 31 - line 44; figure 2 *	2	
A	US 4 202 852 A (MILLER FREDRIC N ET AL) 13 May 1980 (1980-05-13) Abstract *Abstract*		
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 15 March 2002	Examiner Papadimitriou, S
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 38 0010

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

15-03-2002

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9852458	A	26-11-1998	AU 740795 B2	15-11-2001
			AU 7584798 A	11-12-1998
			AU 7584898 A	11-12-1998
			BR 9809155 A	01-08-2000
			CN 1264278 T	23-08-2000
			CN 1264279 T	23-08-2000
			DE 69802798 D1	17-01-2002
			EP 1147734 A2	24-10-2001
			EP 0983014 A1	08-03-2000
			EP 0986322 A1	22-03-2000
			HU 0003717 A2	28-02-2001
			JP 2001527454 T	25-12-2001
			JP 2001527455 T	25-12-2001
			NO 995728 A	24-01-2000
			NO 20001156 A	07-03-2000
			TR 9902876 T2	21-02-2000
			TR 200000246 T2	21-07-2000
			WO 9852458 A1	26-11-1998
			WO 9852459 A1	26-11-1998
			US 2001055926 A1	27-12-2001
			ZA 9804330 A	11-11-1999
			ZA 9804333 A	30-11-1998
			HU 0002693 A2	28-12-2000
US 4144370	A	13-03-1979	AU 502449 B2	26-07-1979
			AU 2088476 A	29-06-1978
			BR 7608726 A	25-10-1977
			CA 1039937 A1	10-10-1978
			GB 1550955 A	22-08-1979
			JP 52085571 A	15-07-1977
			NL 7614504 A ,B,	01-07-1977
			ZA 7607655 A	30-08-1978
WO 9962393	A	09-12-1999	AU 4667699 A	20-12-1999
			EP 1107686 A1	20-06-2001
			NO 20006048 A	01-02-2001
			SE 9801946 A	03-12-1999
			WO 9962393 A1	09-12-1999
DE 20012226	U	14-12-2000	DE 20012226 U1	14-12-2000
EP 1045059	A	18-10-2000	DE 19917275 A1	19-10-2000
			AU 740859 B2	15-11-2001
			AU 2767100 A	19-10-2000
			CA 2305114 A1	16-10-2000
			CN 1283718 A	14-02-2001

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 38 0010

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

15-03-2002

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1045059	A		EP 1045059 A1	18-10-2000
US 4202852	A	13-05-1980	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82